ABSTRACT OF THE DISCLOSURE

A flow rate sensor capable of increasing a range where fluid flow rate can be detected with a high accuracy. The flow rate sensor includes: a sensor pipe; a resistor group; a reference resistor group; a constant current source; a first differential circuit; and a flow rate decision unit. The flow rate sensor further includes: a dummy sensor pipe where no fluid is flown; a dummy resistor group changing their resistance value according to the temperature and attached in the longitudinal direction, a dummy reference resistor group, a for-dummy constant current source, switch means for selectively connecting the resistor group with the dummy resistor group in series, a flow rate range increasing differential circuit for detecting a potential difference, and a third flow rate decision unit for obtaining the flow rate of the fluid flowing in the fluid passage according to the potential difference.